R E P O R T R E S U M E S

ED 014 543 VT 001 174

AGRICULTURAL EDUCATION. (TITLE SUPPLIED).

PUB DATE JUL 66

EDRS PRICE MF-$0.25 HC-$0.52 11P.

DESCRIPTORS- *AGRICULTURAL EDUCATION, *EDUCATIONAL OBJECTIVES, CURRICULUM, HIGH SCHOOLS, ADULT VOCATIONAL EDUCATION, POST SECONDARY EDUCATION, *AGRICULTURAL TRENDS, VIRGINIA,

AGRICULTURE IS THE MOST BASIC INDUSTRY IN THE UNITED STATES AND, AS OUR SOURCE OF FOOD, FEED, AND FIBER, OCCUPIES A KEY ROLE IN THE ECONOMY OF THE COUNTRY. CHANGING DEMANDS AND SCIENTIFIC DEVELOPMENTS HAVE CREATED A NEED FOR INCREASED EMPHASIS ON TRAINING INDIVIDUALS FOR EMPLOYMENT IN THE TOTAL INDUSTRY OF AGRICULTURE. THESE CHANGES HAVE IMPLICATIONS FOR AGRICULTURAL EDUCATION -- (1) THE IMPORTANCE OF PRODUCTION AGRICULTURE INCREASES AS THE POPULATION INCREASES, AS TECHNOLOGICAL ADVANCES REQUIRE ADDITIONAL KNOWLEDGE AND SKILLS, AND AS TRAINING FOR FARMING OCCUPATIONS BECOMES MORE COMPLICATED, (2) MORE ATTENTION SHOULD BE GIVEN TO THE EDUCATIONAL NEEDS OF PEOPLE EMPLOYED BOTH IN AGRICULTURE AND OTHER OCCUPATIONS, AND (3) BECAUSE NONFARM AGRICULTURAL BUSINESSES EMPLOY ABOUT ONE-THIRD OF ALL WORKERS, INSTRUCTIONAL PROGRAMS SHOULD BE EXPANDED TO MEET SPECIAL EDUCATIONAL NEEDS OF INDIVIDUALS SEEKING OFF-FARM AGRICULTURAL EMPLOYMENT. PURPOSES, SPECIFIC OBJECTIVES, ENROLLMENT REQUIREMENTS, AND SAMPLE INSTRUCTIONAL PROGRAMS FOR AGRICULTURAL EDUCATION ARE INCLUDED. (WB)

ED014543

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Agricultural Education.
(TITLE SUPPLIED)

INTRODUCTION

Agriculture is the most basic industry in Virginia and the United States. It is the major source of food, feed, and fiber and it will continue to occupy a key role in the economy of our state and nation. Without the raw materials of agriculture other industries could not survive. "Unstable is the future of the country which has lost its taste for agriculture. If there is one lesson in history which is unmistakable, it is that the national strength lies near the soil." . . . Daniel Webster.

In addition to farming, today's industry of agriculture includes the many businesses that process, market, and distribute agricultural products. It further includes those businesses that provide the many agricultural supplies and services needed for the production of agricultural products.

The need for adequately trained workers throughout the agricultural industry continues to increase. At the same time the number of people actually working on the farms has declined. Today, for every worker on the farm engaged in the production of agricultural products there are about three workers engaged in the off-farm segments of agriculture. Many of these off-farm workers need knowledge and skills in agriculture. With the many technological changes that are taking place daily in agriculture the need for a sound instructional program to prepare students for employment in the total industry of agriculture has never been greater.

Vocational Education in Agriculture is an integral part of the total school program. The course is based upon the needs, interests and capabilities of the individuals enrolled and the communities to be served. These individuals consist of high school students enrolled in Agricultural Education courses, and out-of-school youths and adults who are engaged, or plan to become engaged, in agricultural pursuits. One of the major objectives of Agricultural Education has been, and still is, training for proficiency in farming. However, changing demands and scientific developments have created a need for increased emphasis on training individuals for employment in the total industry of agriculture.

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AGRICULTURAL TRENDS AND IMPLICATIONS FOR AGRICULTURAL EDUCATION

As our source of food, feed and fiber, agriculture occupies a key role in our over-all economy. Modern day agriculture is a highly diversified, efficiently operated, rapidly changing industry. It is based on sound scientific technology, and must be operated on sound business principles.

Current changes in our way of life hold many implications for Agricultural Education. Some of the more obvious implications are as follows:

1. The importance of production agriculture increases daily as our population increases. Technological advances require additional knowledge and skills. Therefore, the training of individuals to engage in farming is more complicated and more important than ever before.
2. In many communities the Agricultural Education program should give more attention to the educational needs of people who are engaged in two or more jobs -- agriculture and other employment.
3. Non-farm agricultural businesses employ about one-third of all workers. The requirements for entry and advancement in many of these jobs require special knowledge, skills, attitudes and understandings. Additional emphasis should be placed on developing appropriate educational programs to prepare persons for these job opportunities.
4. Agricultural Education must offer increased opportunities for the application of scientific principles in life sciences and the natural sciences as taught in the total educational program.

5. Because of the nature of their particular employment, the technological advances of our day and the ever increasing educational needs of our citizens, attention should be given to post-high school programs for agricultural occupations and to adult refresher or retraining courses. Agricultural Education in high school must continue to serve as preparatory training for students who later will enroll in area schools, trade schools, colleges and universities.

6. Farming is changing so rapidly that much of the vocational training in agriculture must be done through young farmer and adult farmer classes, as well as for high school students, and through individual on-farm instruction for all three groups. Modern science and technology necessitates greater emphasis in the field of farm management and agricultural mechanics.

7. Individuals now living on the farm will need continuing education in scientific agriculture to further develop their farming programs, or to prepare them for employment with any agricultural business in which they may work.

8. The leadership and citizenship training opportunities in the Future Farmers of America should be well suited to meet the needs of agricultural students regardless of their occupational choices.

9. In the advanced Agricultural Education courses the student should be placed for supervised work experience in the type of agricultural occupation in which he expects to become engaged. This experience can be acquired through supervised activities conducted at the school,

on the farm, or on the job, under the supervision of the teacher. This occupational experience should provide opportunities for practical application of information learned in organized classes, and should enable the student to gain more skills, and more proficiency in management.

10. Since instructional time is limited, even in a four-year Agricultural Education course, and it is difficult to teach all desirable agricultural subject matter during that time, the instructional materials should be organized into units of larger blocks of time, so that the learner can better acquire basic understandings that will enable him to solve agricultural problems as they arise.

11. The need for capable leadership in agriculture is eminent. Therefore, agricultural teachers and others should provide guidance and counseling in order that students may realize their fullest potential in the industry of agriculture.

12. As provided for in the Vocational Education Act of 1963, Agricultural Education instructional programs should be expanded to meet the special educational needs of individuals who plan to seek agricultural employment in off-farm agricultural occupations.

THE PURPOSES OF AGRICULTURAL EDUCATION

Education for useful employment and proficiency in agricultural occupations is the major purpose of Agricultural Education. In harmony with the cardinal principles of education, Agricultural Education contributes to the total development of the individual in preparing him for a useful life.

In keeping with current trends in agriculture, Agricultural Education has the following major purposes:

1. To develop agricultural competencies needed by individuals engaged in or preparing to engage in production agriculture.
2. To develop agricultural competencies needed by individuals engaged in or preparing to engage in agricultural occupations other than production agriculture.
3. To develop an understanding and appreciation of career opportunities in agriculture and of the preparation needed to enter and progress in agricultural occupations.
4. To develop the ability to secure satisfactory placement and to advance in an agricultural occupation through a program of continuing education.
5. To aid in developing those abilities in human relations required for success in agricultural occupations.
6. To aid in developing the abilities needed to exercise and follow effective leadership in fulfilling occupational, social and civic responsibilities.

SPECIFIC OBJECTIVES

It is fundamental to the program of instruction in Agricultural Education in any school that it be based on the needs and interests of individuals. It should be realistic in the light of actual existing or anticipated opportunities for gainful employment, and be taught within the limits of the individual's ability to benefit from such education.

The purposes of Agricultural Education in the public schools are two fold--to contribute to the broad educational objectives of the public school system, and to provide education needed for employment in the industry of agriculture.

In keeping with the above purposes, a good Agricultural Education program contributes to the following objectives:

1. To provide experiences for students that will enable them to make intelligent career choices.
2. To provide basic education in agriculture for high school youth who plan to engage in some type of production agriculture.
3. To provide basic education for high school youth who will later go into agricultural business occupations requiring knowledge, skills and abilities common to both agriculture and industry.
4. To assist with the occupational and vocational guidance of high school youth.
5. To provide an opportunity for high school youth to develop the knowledge, skills and abilities required in gaining proficiency in agricultural mechanics.

6. To provide preparatory educational programs for students interested in post-high school training in area schools, trade schools, colleges and universities.

7. To develop responsibility, leadership, citizenship and cooperation through the application of the life sciences and the social sciences.

8. To complement the broad educational objectives of the public school system by making practical and intellectually appealing applications of the academic subjects, particularly sciences, mathematics and economics, as they relate to the problems of the agriculture student.

9. To give instruction in post-high school courses to youth and adults who need or desire training or retraining either for full-time or part-time employment in production agriculture.

10. To give continuing post-high school training or retraining to workers employed in agricultural occuations who need to upgrade their present skills or learn new skills.

11. To provide meaningful educational experiences with practical application to the problems of youth, thereby encouraging students to stay in school.

WHO SHOULD ENROLL IN AGRICULTURAL EDUCATION

I. High School Students Who --

A. Plan to enter production agriculture

B. Plan to work in non-farm agriculture occupations

C. Plan to enter college to prepare for a professional career in agriculture

D. Plan to continue their education in area schools, technical schools and other post-high school programs. Guidance in selecting an occupation is especially important to these students.

E. Can benefit from the challenge provided through opportunities to apply the knowledge, skills, attitudes and appreciations gained in mathematics, science, economics and other academic subjects leading to self discovery, vocational maturity and responsible citizenship.

II. Post-High School Students Who --

A. Are engaged in full-time or part-time production agriculture

B. Are employed in or seek employment in some agricultural business and who need to upgrade their present skills or learn new skills.

C. Can profit from special courses such as gardening, home beautification or mechanics related to avocational interests.

III. Adults Who --

A. Are engaged in or plan to engage in full-time, or part-time production agriculture.

B. Are employed in or seek employment in agricultural business or industry and need to learn additional skills.

C. Are becoming established in farming. These young men are encouraged to participate in the Young Farmer Organization.

D. Pursue agricultural avocational interests.

IV. Special Groups -- Special courses may be offered to meet the needs of individuals with academic, socio-economic, or other handicaps.

THE INSTRUCTIONAL PROGRAM IN AGRICULTURAL EDUCATION

The details of the exact instructional program for each Agricultural Education department should be determined locally by the teacher, with assistance from advisory councils, students, parents, farmers, faculty, school administrators, teacher trainers, supervisors, and other professional agricultural workers. It should be based on the needs of the students enrolled, the existing agricultural situation in the school's community, agricultural trends, opportunities for employment, and the possibilities for students' supervised work experiences. The material outlined in this Course of Study provides for four years of instruction in Agricultural Education. The first two years are devoted to basic agricultural science and mechanics. During this period, basic principles of the sciences, mathematics, economics, etc. are reviewed or learned and applied to agricultural situations. These years of study provide much of the knowledge and skills common to production agriculture and employment in agricultural industries.

Below are brief explanations of the courses for each year of Agricultural Education:

First Year: Agricultural Science and Mechanics I

The first year of Agricultural Education is introductory and basic in nature. The student will receive personal guidance and counseling which will help him select those courses which will lead to gainful employment, or to a continuation of his formal education beyond the high school level. This is a course relating to basic life science and mechanical skills as they relate to both rural and urban life. Life science deals with origins, structures, and functions of living things, and includes a study of the basic biological sciences, earh sciences and social sciences.

The instruction and practice received in the mechanics program, along with interesting experiences applying science, economics and mathematics to real situations, is designed to encourage students to remain in school through the challenge of learning.

Second Year: Agricultural Science and Mechanics II

This course is designed to further develop an understanding of the sciences of living things and to help the student understand the world in which he lives. During this year the student will examine the sciences related to agriculture, which also have practical application in many other areas. Agricultural Science deals with man's production and utilization of all plants and animals, and the conservation of natural resources, and it includes study of those principles of the biological and physical sciences that apply to agriculture.

The mechanics course is designed to provide the student with instruction basic to occupations in which mechanical skills are necessary. Again, during this second year of Agricultural Education study, education in mechanics will require about one-half of all course time. Guidance and counseling during this year will help the student in making his vocational choice, and in determining the curriculum option to follow in advanced Agricultural Education courses.

Diagram of Courses in Agricultural Education
For
High Schools in Virginia